REMARKS

Claims 1-40 are currently pending. Claims 1-40 have been rejected. Claims 1, 13, 25, 38 and 39 have been amended to clarify the scope of the invention.

AMENDMENTS TO THE CLAIMS

Claims 1, 13, 25, 38 and 39 have been amended to clarify that the claims recite a transaction printer. Support for this amendment can be found at least in claim 14, line 2 and on page 2, lines 6-21 of the applicants' specification. As noted in the specification a transaction printer is any printer which is used to print a record of a transaction, multiple examples of which are given in the specification which include but are not limited to POS printers, bank ATM printers, queuing number printers, parking lot ticket printers, and kiosk terminal printers.

REJECTIONS UNDER 35 U.S.C. § 103

The examiner has rejected claim 1 under 35 U.S.C. § 103(a) as being unpatentable over: U.S. Patent No. 4,442,765 issued to Hoffman (hereinafter referred to as Hoffman); U.S. Patent No. 5,493,386 issued to Thompson (hereinafter referred to as Thompson); Japanese Application Publication No. 07-089053 issued to Yoshihiro et al. (hereinafter referred to as Yoshihiro); and U.S. Patent No. 5,930,093 issued to Sato et al. (hereinafter referred to as Sato).

The examiner has rejected claims 2-4, 14-17, 25-28, 36 and 37 under 35 U.S.C. § 103(a) as being unpatentable over: Hoffman; Thompson; Yoshihiro; Sato; and U.S. Patent No. 5,592,298 issued to Caruso (hereinafter referred to as Caruso).

The examiner has rejected claims 5, 18 and 29 under 35 U.S.C. § 103(a) as being unpatentable over: Hoffman; Thompson; Yoshihiro; Sato; Caruso; and U.S. Patent No. 6,529,202 issued to Wu (hereinafter referred to as Wu).

The examiner has rejected claims 6-8, 19-21 and 30-32 under 35 U.S.C. § 103(a) as being unpatentable over: Hoffman; Thompson; Yoshihiro; Sato; Caruso; and U.S. Patent No. 6,027,200 issued to Takahashi et al. (hereinafter referred to as Takahashi).

The examiner has rejected claims 9-11, 22-24 and 33-35 under 35 U.S.C. § 103(a) as being unpatentable over: Hoffman; Thompson; Yoshihiro; Sato;

Caruso; Takahashi; and U.S. Patent No. 5,802,420 issued to Garr et al. (hereinafter referred to as Garr).

The examiner has rejected claim 12 under 35 U.S.C. § 103(a) as being unpatentable over: Hoffman; Thompson; Yoshihiro; Sato; and U.S. Patent No. 5,905,894 issued to De Bonet (hereinafter referred to as De Bonet).

The examiner has rejected claim 13 under 35 U.S.C. § 103(a) as being unpatentable over: Hoffman; Thompson; Yoshihiro; Sato; and U.S. Patent No. 5,782,567 issued to Endo (hereinafter referred to as Endo).

The examiner has rejected claims 38, 39 and 40 under 35 U.S.C. § 103(a) as being unpatentable over: Hoffman; Thompson; Yoshihiro; Sato; Garr, Endo and U.S. Patent No. 6,377,359 issued to Higashio (hereinafter referred to as Higashio).

REGARDING THE CITED ART

The examiner has provided the applicants with a machine translation of Yoshihiro. In order to advance the prosecution of the application, the applicants have enclosed a translation of Yoshihiro, as Exhibit A, which they believe more accurately, reflects the substance of Yoshihiro.

Yoshihiro discloses a printing method in which a printing plate is prepared by a plate-making process. Yoshihiro, paragraph 2, lines 1-2. A plurality of ink ducts are arranged along the printing plate in a printing machine. Yoshihiro, paragraph 2, lines 6-9. Ink fed from the ducts is applied to the printing plate with rollers. Yoshihiro, paragraph 2, lines 9-11. The surface of the printing plate is divided into zones. Yoshihiro, paragraph 2, lines 13-15. The amount of ink fed to each zone is adjusted in response to the image density. Yoshihiro, paragraph 3, lines 1-5. The printing plate preparing apparatus simultaneously prepares the plate and calculates the ink required. Yoshihiro, paragraph 17, lines 12-15. The printing plate is prepared by irradiating portions of an aluminum plate material while the material is on a rotating drum. Yoshihiro, paragraph 16, lines 1-9. An exposure signal, representative of the image to be printed, is generated and sent to an exposure head. See Yoshihiro, paragraph 17(2), lines 3-8. Bitmap data is used to generate the exposure signal. Yoshihiro, paragraph 22, lines 10-16. An exposure data detected signal is generated from the bitmap data at the same time as the exposure signal is generated. Yoshihiro, paragraph 23, lines 1-3. A counter counts up the number of exposure data detected signals for each line of the bit map that is exposed. Yoshihiro, paragraph 23, lines 4-8. An image portion area ratio is calculated

from the count values. Yoshihiro, paragraph 35, lines 1-8. The image area portion ratio is represented as the ink amount data. Yoshihiro, paragraph 36, lines 6-8.

In summary, Yoshihiro discloses an apparatus for estimating the ink that should be feed from each of a plurality of ink ducts in a printing machine. The ink estimation is performed at the same time as a printing plate is produced

The applicants respectfully disagree with the examiner's position that, "Yoshihiro discloses an apparatus that simultaneously calculates the amount of ink to used in parallel with the process of creating a printing version of bit map data" (the creation of a printing plate) is equivalent to displaying the logo data and the ink-amount data simultaneously on a display unit. A display unit as described in the specification on page 8, lines 25-26 is a CRT, a LCD or other such display device. Whereas a printing plate is a metal plate that includes a permanent representation of the logo data. A printing plate is in not equivalent to a display unit as used by the applicants.

The process of displaying the logo data and the ink-amount data simultaneously allows for quick feedback when a change is made to the displayed logo data. Quick feedback is not possible in the apparatus disclosed by Yoshihiro. The apparatus disclosed by Yoshihiro requires the creation of a printing plate, which is a time-consuming and expensive process. Thus, Yoshihiro does not suggest or disclose a display unit for displaying the logo data and the ink-amount data simultaneously as recited in claim 1. Claim 1 is allowable over the cited art for at least this reason.

Hoffman, discloses an ink calculating technique for predicting the printing ink requirements for images reproduced by off-set printing. Hoffman, column 2, lines 43-49. The technique disclosed by Hoffman is presented as an improvement upon a prior art technique disclosed by Metash. Hoffman, column 2, lines 4-27. The prior art technique worked well for gravure printing but not for offset printing. Hoffman, column 2, lines 36-42.

Both offset printing and gravure printing are very similar and are examples of indirect rotary printing techniques, which involve the creation of an etched printing plate. These indirect printing techniques are not appropriate for transaction printers. These techniques are expensive, time consuming and more appropriate to large volume printing presses then the transaction printer, recited in claim 1. In addition, the ink calculation technique for offset printing disclosed by Hoffman is presented as an inventive improvement on Metash's ink calculation technique for gravure printing. These similar printing techniques

are very different from then printing techniques used by transaction printers (e.g., ink jet printers, etc.) The presentation of Hoffman's technique as an inventive improvement over Metash, would indicate to a person of ordinary skill in the art, that any additional improvement over Hoffman, such that Hoffman's technique would work for a completely different printing technique would also be inventive, non-obvious would not have a reasonable expectation of success. Furthermore, Hoffman does not suggest or disclose any such modification nor provide any motivation to perform such a modification. For at least these reasons Hoffman does not suggest or disclose an ink-amount calculating unit which might be used for a transaction printer such as recited in claim 1. This is an additional reason claim 1 is allowable over the cited art.

Furthermore there is nothing in Hoffman nor in the cited art, which suggests or discloses a method of calculating the ink consumption of an image that has been modified electronically short of reprinting and rescanning the modified image. This is a further reason as to why claim 1 is patentable over the cited art.

The examiner has characterized Endo as disclosing a POS printer in which the logo data is image data stored in the printer. The applicants respectfully disagree with this characterization of Endo. Endo discloses a printing apparatus which includes two inline printing mechanism. Endo, column 2, lines 52-55. The front printer is a receipt printer. Endo, Column 5, lines 40-47. The back printer is a journal printer and includes a take up reel for storing the printed journal. Endo, column 5, lines 47-50. Endo does not disclose a printer that stores image data for printing, instead Endo discloses a printer that stores paper journals of the receipts printed. For at least this reason claims 13, 38, 39 and 40 are allowable over the cited art.

Claims 14, 25, 38 and 39 are allowable at least for the same reasons as claim 1. Claims 2-13, 15-24, 26-37 and 40 are allowable over the cited art at least because they are dependent upon allowable base claims.

In view of the foregoing amendments and remarks, Applicants respectfully request favorable reconsideration of the present application.

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